

## CLAIMS

What is claimed is:

1. A data serialization method comprising:
  - 5 encoding a number as one or more four-bit nibbles, wherein three bits of a nibble are for encoding said number and one bit of said nibble is for indicating whether encoding of said number is continued to another nibble;  
using pairs of commands to bracket selected nibbles, wherein a first command is for indicating when a group of selected nibbles begins and a  
10 second command is for indicating when said group ends; and  
serializing said number and said commands in a stream.
2. The method of Claim 1 further comprising marking a command  
with a sentinel value, said sentinel value for indicating said command follows  
15 thereafter.
3. The data serialization method of Claim 2 wherein said sentinel  
value is zero and wherein said number is incremented by a prescribed amount  
prior to encoding such that the number zero is distinguishable from said  
20 sentinel value.
4. The data serialization method of Claim 1 wherein an object  
comprising a grouping of data is serialized as a first set of numbers, each of  
said numbers encoded as one or more nibbles, said first set of numbers  
25 bracketed by a pair of first and second commands.

5. The data serialization method of Claim 4 further comprising associating a reference number with said object, wherein a subsequent occurrence of said object in said stream uses said reference number in lieu of said first set of numbers.

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6. The data serialization method of Claim 5 further comprising distinguishing said reference number from said first set of numbers by observing the number of occurrences in said stream of said first and second commands.

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7. The data serialization method of Claim 4 wherein said stream further comprises instructions associated with constructing said object from said set of numbers, said instructions serialized as a second set of numbers bracketed by a pair of first and second commands.

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8. The data serialization method of Claim 7 further comprising associating a reference number with said instructions, wherein a subsequent occurrence of said instructions in said stream uses said reference number in lieu of said second set of numbers.

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9. The data serialization method of Claim 4 wherein said stream further comprises instructions for entering said first set of numbers into data fields of said object.

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10. The data serialization method of Claim 4 further comprising an interpreter of said stream reading said first set of numbers into data fields of said

object starting at said first command and automatically skipping to said second command when said data fields are filled.

11. A method of interpreting serialized data received in a stream, said  
5 method comprising:

reading a begin value that precedes a group of nibbles, said group  
followed by an end value that indicates when said group ends;

decoding said nibbles into a first set of numbers that constitute a data  
object, wherein three bits of each nibble represents some portion of a number  
10 and wherein a fourth bit of each nibble indicates whether any remaining portion  
of said number is continued into another nibble;

entering said first set of numbers into data fields to construct said data  
object; and

skipping over any remaining nibbles to said end value when said data  
15 fields are filled.

12. The method of Claim 11 wherein said begin and end values are  
each preceded with a sentinel value that marks said begin and end values.

20 13. The method of Claim 12 wherein said sentinel value is zero and  
wherein said numbers are each incremented by a prescribed amount prior to  
encoding such that the number zero is distinguishable from said sentinel value.

14. The method of Claim 11 wherein a reference number is  
25 associated with said first set of numbers and thus with said data object, wherein  
subsequent occurrences of said data object in said stream comprise said  
reference number in lieu of said first set of numbers.

15. The method of Claim 14 further comprising maintaining a count of begin values and of end values to determine whether said reference number is being used in lieu of said first set of numbers.

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16. The method of Claim 11 wherein said stream further comprises instructions associated with constructing said data object.

17. The method of Claim 11 wherein said stream further comprises  
10 instructions for entering said first set of numbers into said data fields.

18. A computer system comprising:  
a bus;  
a processor coupled to said bus; and  
15 a memory coupled to said bus, said memory comprising instructions for implementing a method of serializing data, said method comprising:  
encoding a number as one or more four-bit nibbles, wherein three  
bits of a nibble are for encoding said number and one bit of said nibble is  
for indicating whether encoding of said number is continued to another  
20 nibble;  
using pairs of commands to bracket selected nibbles, wherein a  
first command is for indicating when a group of selected nibbles begins  
and a second command is for indicating when said group ends; and  
serializing said number and said commands in a stream.

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19. The computer system of Claim 18 wherein said method further comprises marking a command with a sentinel value, said sentinel value for indicating said command follows thereafter.

5        20. The computer system of Claim 19 wherein said sentinel value is zero and wherein said number is incremented by a prescribed amount prior to encoding such that the number zero is distinguishable from said sentinel value.

10       21. The computer system of Claim 18 wherein an object comprising a grouping of data is serialized as a first set of numbers, each of said numbers encoded as one or more nibbles, said first set of numbers bracketed by a pair of first and second commands.

15       22. The computer system of Claim 21 wherein said method further comprises associating a reference number with said object and wherein a subsequent occurrence of said object in said stream uses said reference number in lieu of said first set of numbers.

20       23. The computer system of Claim 22 wherein said method further comprises distinguishing said reference number from said first set of numbers by observing the number of occurrences in said stream of said first and second commands.

25       24. The computer system of Claim 21 wherein said stream further comprises instructions associated with constructing said object from said set of numbers, said instructions serialized as a second set of numbers bracketed by a pair of first and second commands.

25. The computer system of Claim 24 wherein said method further comprises associating a reference number with said instructions, wherein a subsequent occurrence of said instructions in said stream uses said reference  
5 number in lieu of said second set of numbers.

26. The computer system of Claim 21 wherein said stream further comprises instructions for entering said first set of numbers into data fields of said object.  
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27. The computer system of Claim 21 wherein said method further comprises an interpreter of said stream reading said first set of numbers into data fields of said object starting at said first command, wherein said interpreter automatically skips to said second command when said data fields are filled.  
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